

Selecting Trees and Woody Shrubs for the Columbia Plateau

The "right" tree or woody shrub for this area depends on knowing what you want it to do for you.

Pick Trees or Woody Shrubs to Meet Your Needs

It is important to consider how trees and shrubs will fit into your landscape. Characteristics to think about when making selections include location and function of the space, whether plants will be in full sun or shade, and soil type. Plant qualities like flowering, fruiting, fall color, bark character, foliage, texture or crown shape, height, longevity, susceptibility to insects or diseases, and water needs all should be considered. Trees and shrubs may help provide shade, buffer noises, and create privacy screening between neighbors. They help provide energy conservation (both heating and cooling), as well as food and habitat for wildlife.

Select Trees and Shrubs for Adaptability to Central Washington's Conditions

Choose planting stock that is appropriate to the planting area. In the Columbia Plateau, trees and shrubs must be able to tolerate high winds, low annual rainfall (6-12"), and be able to withstand hot and cold temperature extremes that vary with the season. This is USDA zone 6, but in case of an extreme winter, zone 5 plants are always safe. Soil testing and preparation is recommended to help determine if conditions are acceptable or if fertilizer or other soil amendments need to be made for trees that aren't native to the area. Just because inexpensive trees and shrubs are available through the local retail outlets or through mail order does not mean they will thrive here, so it is necessary to do your homework before making purchases.

Choose Trees and Shrubs for Ease of Maintenance

Be aware that trees and shrubs often require different levels of maintenance. Leaves, fruit, nuts, seedpods, or cones may need to be cleaned up regularly when they drop. Some trees and shrubs need to be pruned regularly or thinned to keep them healthy and attractive. Avoid trees and shrubs that have pest problems, are a pest host for locally grown tree fruit crops, or that require regular pesticide applications.

Determine Mature Heights and Spacing Requirements for Trees and Shrubs

Plan the space for mature stock even if plants are young. It is sometimes difficult to visualize the size of trees or shrubs when they are planted as small seedlings. However, homeowners need to know how the stock will fit into the landscape when it is mature. Spacing between plants and/or rows is another consideration since mature plants may become crowded if planted too closely. Trees or shrubs that outgrow their spaces can cause many challenges. Proximity to house foundations and roofs, sidewalks, street lights or stop signs, driveways or streets, septic tanks, power lines, underground utility lines or other structures should be assessed as roots and limbs can cause many problems.

Many people prefer to select trees and shrubs that grow quickly and provide the most shade in the shortest period. Some of these "bargain" species are not well adapted, have short life spans, or grow large so fast that their heights are targets for tree toppers or massive pruning actions, neither of which is recommended. These apparent remedies spoil the natural beauty of the tree or shrub and

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may shorten its life since it can become more susceptible to pests or diseases as well as loss of limbs not anchored to heartwood.

Irrigating Trees and Shrubs

Supplemental irrigation is needed to establish and maintain trees and shrubs in central Washington. Watering trees and shrubs with an irrigation system that is designed for a lawn will not sustain them as they grow and mature. While young stock may survive, larger more mature trees and shrubs still require regular applications of water and should be irrigated separately, by hand or with an irrigation delivery system that is designed for the plant's needs. Water trees at the drip-line and beyond where the roots can absorb the water. Watering at the trunk does little to water the tree. Water enough to wet the soil ten to twelve inches deep in the drip zone area, then let the soil gradually dry before watering again. Depending on your soil conditions, this could be a lot of water.

Timing of Planting

The best time to plant trees and shrubs in this area is late winter-early spring after the winter moderates, but preferably before they open their buds and begin to grow. Plants establish more quickly if planted in the spring while they are still dormant and when the temperatures are not too hot. Alternatively, fall may be another opportune planting window. Evergreen trees can be planted as soon as the weather turns cooler but deciduous trees and shrubs should only be planted after they drop their leaves and become dormant. Trees and shrubs planted in the spring and fall should be watered regularly, even during the winter if the ground is not frozen, to keep the root zone moist. Roots are still able to grow until the soil temperature drops below 45 degrees F.

More Information

Several publications are available to provide trees and shrubs recommended for planting in Eastern Washington including EB1579 "Landscape Plants for the Inland Northwest"

Other References:

Miller, Randall H. No Date Small Trees for Small Places. Pacific Power. PacifiCorp System Forester, Salt Lake City, Utah.

No date Recommended Urban Trees For USDA Plant Hardiness Zone 6 and Colder. 1. Small Trees (<=30') Suitable for City Environment Plantings Under Low Overhead Utility Wires or in Restricted Spaces.

Ogle, Dan, Loren St. John, and Mark Stannard Conservation Shrubs and Trees for the Intermountain West. USDA, Natural Resources Conservation Service. Technical Note Number 50. Boise, ID, Reno, NV, Salt Lake City, UT, and Spokane, WA. January 2008.

Pacific Power 2007 The Right Tree in the Right Place.

Soil Conservation Service 1990 Conservation Trees and Shrubs Pocket ID Guide. USDA.

USDA Natural Resources Conservation Service No Date Seeding and Planting Recommendations for Eastern Washington and Eastern Oregon.

The Washington Water Power Company. No Date The Book of Trees Trees – Tree Selection Guide. Spokane.

Plants that are not available through regular retail outlets may be special ordered through nurseries or mail order.

Trees to Consider

(N) = native

(I)= Introduced

Unless otherwise noted, pests are not a problem

Ash, Green (*Fraxinus pennsylvanica*) “ Cardan” recommended variety. Deciduous tree, 35-65’ tall, long lived and winter hardy; possible drawback – aphid prone; pests – stem decay, leaf rust, ash borer, ash plant bugs, cankerworm, ash yellow; (I).

Fir, Douglas (*Pseudotsuga menziesii*). Evergreen 40-60’ tall, fair drought resistance, diseases/pests – fir beetle, bud worm (N)

Honeylocust (*Gleditsia tricanthos*). Deciduous tree, 30-70’ tall , thorny, winter hardy; benefit - tolerance to drought and alkaline soils; pests – gall midge, cankers (I)

Hornbeam, Columnar (*Carpinus betulus* ‘Columnaris’ or ‘Fastigiata’ varieties). Deciduous tree 20-40’ tall, prefers well drained soil in full sun, can tolerate severe pruning (I)

Juniper, Rocky Mountain (*Juniperus scopulorum* Sarg). Evergreen tree 15-25’ tall, medium height to 20’; very hardy, prefers well drained soils and full sun, slow growing, drought tolerant, windbreak tree (N); pests – phomopsis blight and alternate host for apple cedar rust, tip blight, spider mites, do not plant near crabapple, currant, serviceberry or hawthorn (N)

Maple, Amur (*Acer ginnala*). Deciduous tree or large shrub 15-20’ tall, red foliage in fall; prefers moist well drained soils in full sun though tolerates shade; Diseases – leaf spot, hardy (I)

Maple, Japanese (*Acer palmatum*). Deciduous tree 15-25’ tall, prefers moist, well drained soils, not tolerant to winds, salts or drought; can be pruned to desired shape (I)

Maple, Silver (*Acer saccharinum*). Deciduous tree 40-65’ tall, Disease/pests – very subject to iron and manganese chlorosis in alkaline soils (N)

Maple, Trident (*Acer buergerianum*). Deciduous tree 25-30’ tall, drought tolerant, wet, salty or compacted soils, attractive fall color with exfoliating bark (I)

Mountain Ash, European (*Serbus avcuparia*). Deciduous tree, 20-30’ tall with colorful orange fruit which can be a wildlife food source; (I)

Persian Parrotia (*Parrotia persica*). Deciduous tree 20-30’ tall, prefers well drained soils in full sun to light shade, will not tolerate wet or dry soils, striking exfoliating bark and is pest resistant (I)

Pine, Austrian (*Pinus nigra* Arnold). Evergreen tree, 40-70’ tall; high frequency of annual needle and cone drop, very tolerant of high pH soils, windbreak tree (I)

Pine, Ponderosa (*Pinus ponderosa*). Evergreen tree, 45-75’ tall, good drought resistance, very cold hardy, diseases/pests – needle cast, gall rust, tip moth, saw fly, scale, aphids, windbreak tree (N)

Spruce, Blue (*Picea pungens*). Evergreen tree, medium up to 40’ tall , hardy and long lived; used as an ornamental and in windbreaks (I)

Spruce, Norway (*Picea abies*). Evergreen tree with dwarfing varieties (I).

Woody Shrubs

Buffaloberry, Silver (*Shepherdia argentea* (Pursh) "Sakakawea" variety). Deciduous shrub with thorns; 6 -14' tall; yellow flowers with red fruit, prefers well drained, medium to coarse textured soils, sun and drought tolerant, winter hardy; possible drawback – readily suckers; pests – stem decay and branch cankers (N)

Caragana (*Caragana aborescens*) or Siberian pea shrub. Deciduous shrub, 15'- 20' tall, legume, cold and drought tolerant, good in windbreaks, wildlife food and cover, pests - leafhoppers (I)

Chokecherry (*Prunus virginiana*). Deciduous shrub 12-25' tall, drought tolerant; pests – black knot, stem decay, shothole canker, and tent caterpillars (N)

Cotoneaster (*Cotoneaster integerrimus*). Deciduous shrub 6-12' tall; pests- fire blight, pear slug (I)

Cranberry, Highbush (*Viburnum trilobum*). Deciduous shrub 6-15' tall, prefers well-drained soils, red limbs and fruit clusters (I).

Currant, Golden (*Ribes aureum*) "Mason" variety. Deciduous, 5-8' tall, tolerant of slight to moderate soil alkalinity; good for wildlife food and cover; plant aphid resistant varieties (N)

Dogwood, Redosier (*Cornus sericea*). Deciduous shrub or small tree 7-10' tall, tolerates alkaline well drained soils in full sun but tolerates partial shade and wetter soils; poor drought resistance (N)

Elderberry (*Sambucus Canadensis*). Deciduous shrub 6-8' tall (N).

Honeysuckle (*Lonicera `Amur* or *Tartarian`* varieties). Deciduous shrub 10-15' tall, white or pink flowers, windbreak plant; moderately resistant to honeysuckle aphid (N)

Lilac, Common (*Syringa vulgaris*). Deciduous shrub 6-12' tall, prefers well drained soils full sun; pests – powdery mildew and lilac borer (I)

Rose, Woods' (*Rosa woodsii*). Deciduous shrub 3-6' tall, thorny, fair drought resistance, adapted to wide variety of soils, wildlife food (N)

Serviceberry (*Amelanchier Canadensis*). Deciduous shrub 15' tall (I) though there are native varieties (N)

Sumac, Skunkbush (*Rhus trilobata* Nutt) "Bighorn" variety. Deciduous. 6-8' tall, prefers well drained soils; drought resistant (N)

Staghorn Sumac (*Rhus typhina*). Deciduous shrub 15-25' tall, prefers well drained sites; pests – verticillium, leaf spots, aphids, and mites (N)

Mark Amara, Master Gardener Volunteer
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